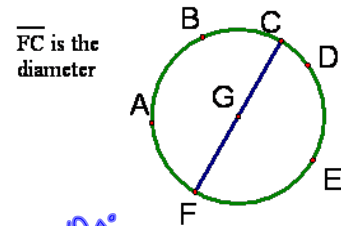


11-3  
Arcs and Central Angles



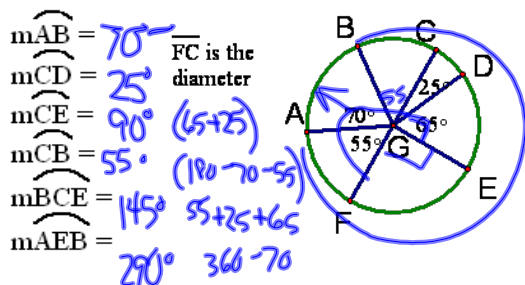
Semicircle- measures  $180^\circ$  (name with 3 letters)

Minor arc-measures less than  $180$  (name with 2 letters)

Major arc- measures more than  $180$  (name with 3 letters)

Central Angle-is an angle whose vertex is the center of the circle and whose sides are radii.

The measure of a minor arc is the measure of its central angle.



Postulate 16-Arc Addition Postulate-The measure of an arc formed by two adjacent arcs is the sum of the measures of the two arcs.



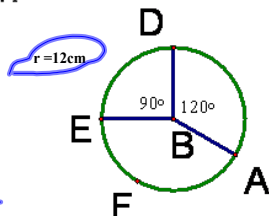
Arc Length-is a portion of the circumference

$$\text{Arc Length} = \frac{\text{Angle}}{360^\circ} \cdot 2\pi r$$

Find the length of  $\widehat{ED}$  =

$$= \frac{90}{360} 2\pi 12$$

$$= 6\pi$$

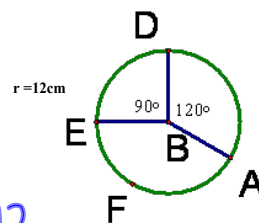


$$\text{Arc Length} = \frac{\text{Angle}}{360^\circ} \cdot 2\pi r$$

Find the length of  $\widehat{AD}$  =

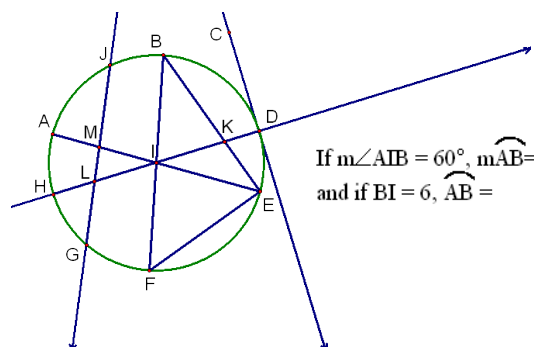
$$= \frac{120}{360} 2\pi 12$$

$$= 8\pi$$



measure of an arc uses degrees

length of an arc uses  $\pi$



If  $m\angle AIB = 60^\circ$ ,  $m\widehat{AB} =$   
and if  $BI = 6$ ,  $\widehat{AB} =$

HW

p604-606

13-39, 47-49